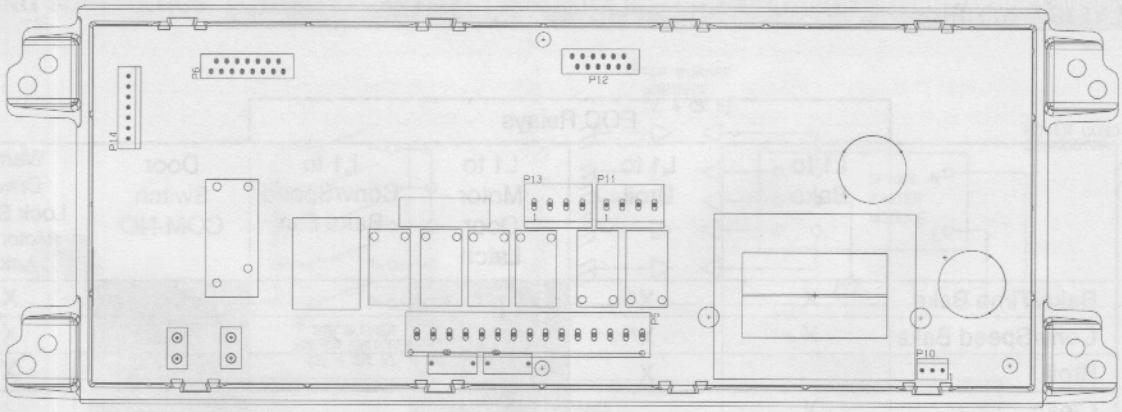
ELECTRONIC OVEN CONTROL (E.O.C. - REAR VIEW)



TEMPERATURE ADJUSTMENT

1. While in a non-cooking mode, press and hold the **BAKE** pad for 6 seconds.
2. The current calibration offset (temperature adjustment) should appear in the temperature display.
3. Use the number pads (0-9) to enter the desired amount of adjustment (up to 35°F).
4. Press the **CLEAN** pad to change the sign of the adjustment to a (-) if necessary. A positive adjustment will not display a sign.
5. Once the desired adjustment (-35° to 35° F) has been entered, press the **START** pad to accept the change or the **CLEAR/CANCEL** pad to reject the change.

Note: Changing calibration affects all Baking modes. The adjustments made will not change the self-cleaning temperature.

ELECTRONIC OVEN CONTROL FAULT CODE DESCRIPTIONS

Fault Code	Likely Failure Condition/Cause	Suggested Corrective Action
F10	Runaway Temperature.	1. (F10 only) Check RTD Sensor Probe & replace if necessary. If oven is overheating, disconnect power. If oven continues to overheat when the power is reapplied, replace EOC. Severe overheating may require the entire oven to be replaced should damage be extensive. 2. (F11, 12 & 13) Disconnect power, wait 30 seconds and reapply power. 3. (F11, 12 & 13) If fault returns upon power-up, replace EOC.
F11	Shorted Keypad.	
F12	Bad Micro Identification.	
F13	Bad EEPROM Identification/Checksum error.	
F30	Open probe connection.	1. (F30 or F31) Check resistance at room temperature & compare to RTD Sensor resistance chart. If resistance does not match the RTD chart replace RTD Sensor Probe. Check Sensor wiring harness between EOC & Sensor Probe connector. 2. (F30 or F31) Check resistance at room temperature, if less than 500 ohms, replace RTD Sensor Probe. Check for shorted Sensor Probe harness between EOC & Probe connector
F31	Shorted Probe connection.	
F90	Maximum oven door unlock time exceeded.	1. (F90, 91, 92, 93 & 94) Check the wiring between EOC & Lock Motor Micro Switch. 2. (F90, 91, 92, 93 & 94) Replace the Motor Door Latch assembly if necessary. 3. (F90, 91, 92, 93 & 94) Check for binding of the Latch Cam, Lock Motor Rod & Lock Motor Cam. 4. (F90, 91, 92, 93 & 94) Check to see if Lock Motor Coil is open. If open, replace Lock Motor Assembly. 5. (F90, 91, 92, 93 & 94) Lock Motor continuosly runs - if Micro Switch is open, replace Lock Motor Assembly. 6. (F92, 93 & 94) Check oven door Light Switch - if open, replace Switch. 7. If all situations above do not solve problem, replace EOC.
F91	Maximum oven door unlock attempts exceeded.	
F92	Maximum oven door open time exceeded.	
F93	Maximum oven door lock time exceeded.	
F94	Maximum oven door lock attempts exceeded.	

REMOVING & REPLACING WARMER DRAWER

⚠WARNING Electrical Shock Hazard can occur and result in serious injury or death. Disconnect appliance from electric power before cleaning and servicing the Warmer Drawer.

To Remove Warmer Drawer:

1. **⚠CAUTION** Turn power off before removing the Warmer Drawer.
2. Open the drawer to the fully opened position.
3. Locate glide lever on each side of drawer, pull up on the left glide lever and push down on the right glide lever (see Figure 1).
4. Pull the drawer away from the range.

To Replace Warmer Drawer:

1. **Pull the bearing glides to the front** of the chassis glide (see Fig. 2).
2. Align the glide on each side of the drawer with the glide slots on the range.
3. Push the drawer into the range until levers "click" (approximately 2"). Pull the drawer open again to seat bearing glides into position. **If you do not hear the levers "click" or the bearing glides do not feel seated remove the drawer and repeat steps 1 thru 3.** This will minimize possible damage to the bearing glides.

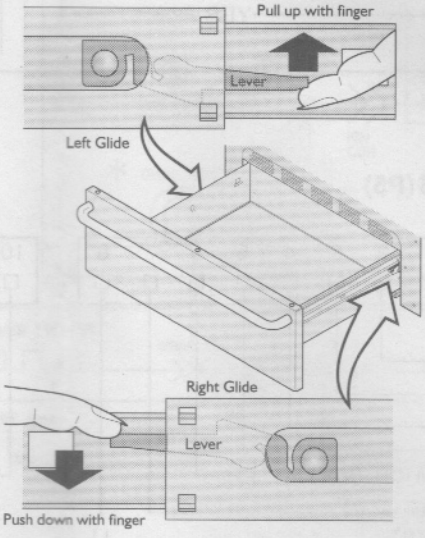


Fig. 1

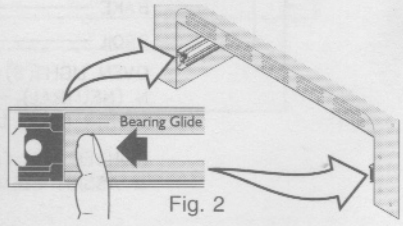


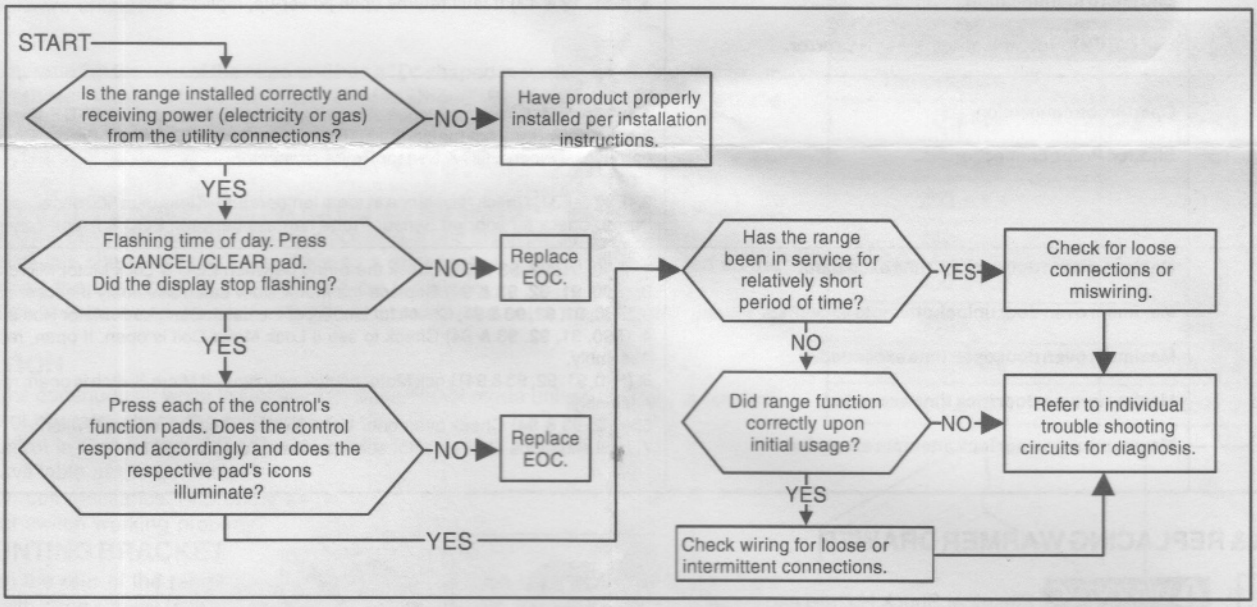
Fig. 2

CIRCUIT ANALYSIS MATRIX

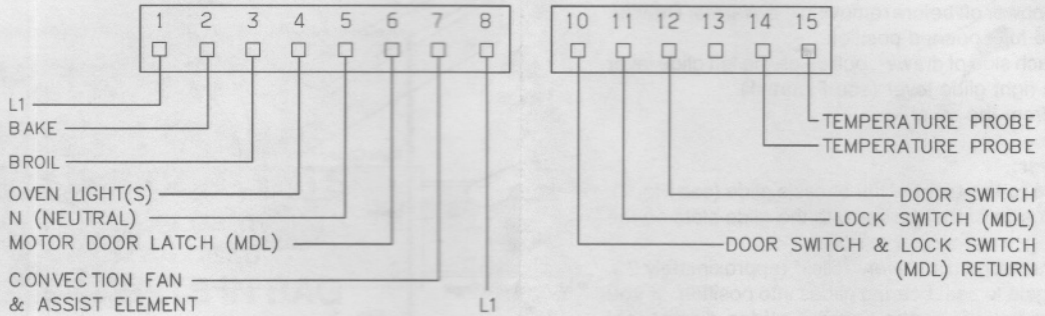
	EOC Relays					
	L1 to Bake	L1 to Broil	L1 to Motor Door Latch	L1 to Conv/Speed Bake Fan	Door Switch COM-NO	Warmer Drawer Lock Switch (Motor Door Latch)
Bake/Time Bake	X	X*				X
Conv/Speed Bake	X	X*		X		X
Broil		X				X
Clean	X					
Unlocked						X
Locking			X			X
Locked						
Unlocking			X			X
Door Open						
Door Closed					X	
Cooktop Active						

Note: X=Check listed circuits. *=Alternates with Bake element.

ELECTRONIC OVEN CONTROL (EOC) TROUBLESHOOTING GUIDE

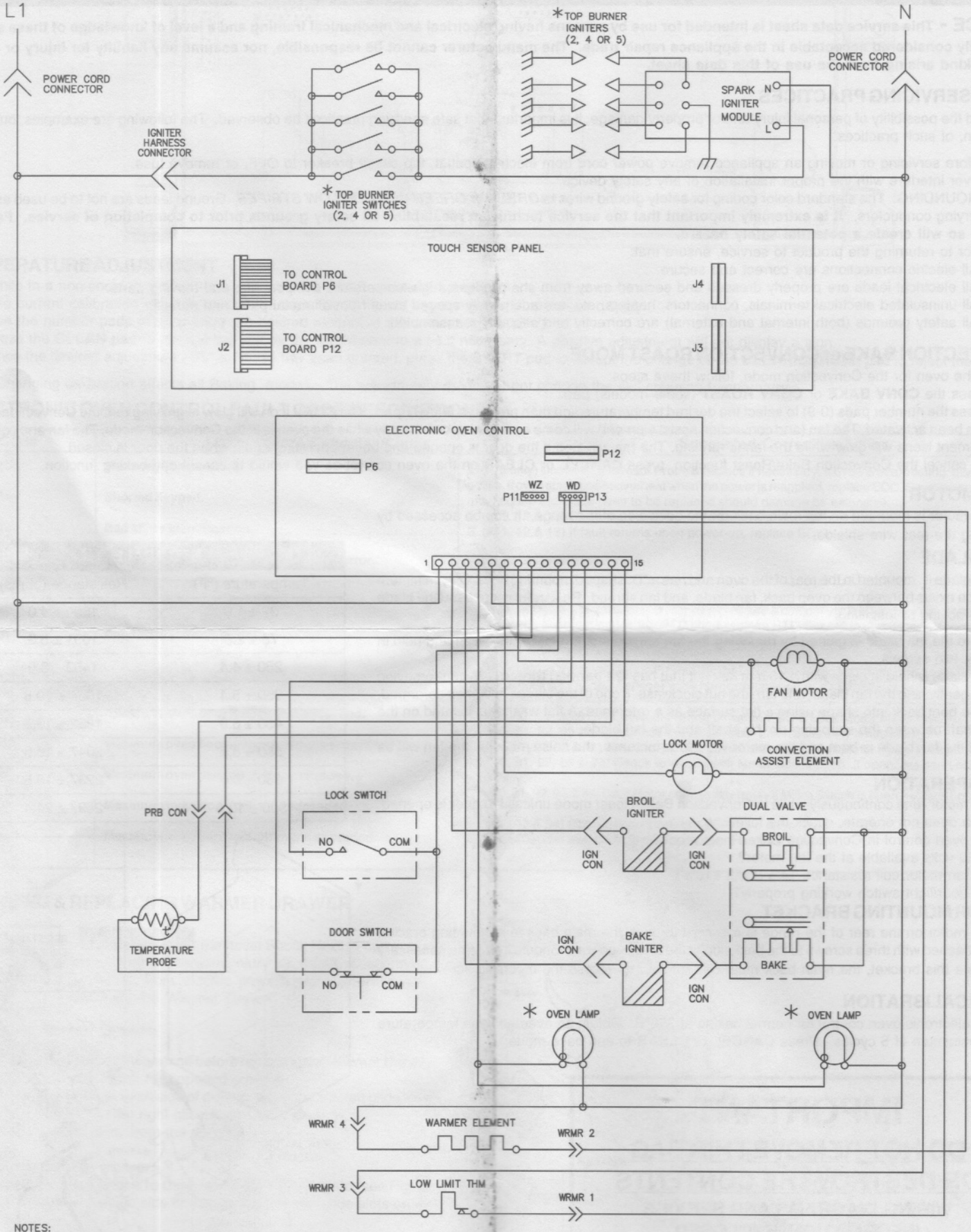

START
Is the range installed correctly and receiving power (electricity or gas) from the utility connections?
NO
Have product properly installed per installation instructions.
YES
Flashing time of day. Press CANCEL/CLEAR pad. Did the display stop flashing?
NO
Replace EOC.
YES
Press each of the control's function pads. Does the control respond accordingly and does the respective pad's icons illuminate?
NO
Replace EOC.
YES
Has the range been in service for relatively short period of time?
YES
Check for loose connections or miswiring.
NO
Did range function correctly upon initial usage?
NO
Refer to individual trouble shooting circuits for diagnosis.
YES
Check wiring for loose or intermittent connections.

E.O.C. CONTROL CONNECTIONS (P5)



TROUBLESHOOTING SCHEMATICS

NOTE: CIRCUITS SHOWN WITH ALL CONTROLS SET TO OFF. OVEN DOOR CLOSED AND UNLOCKED.



NOTES:

1. CIRCUIT SHOWN WITH ALL CONTROLS SET TO OFF, OVEN DOOR CLOSED AND UNLOCKED.
2. COMPONENTS WITH * DO NOT APPEAR ON ALL MODELS.

SERVICE DATA SHEET

Gas Ranges with ES 565 Electronic Oven Control

NOTICE - This service data sheet is intended for use by persons having electrical and mechanical training and a level of knowledge of these subjects generally considered acceptable in the appliance repair trade. The manufacturer cannot be responsible, nor assume any liability for injury or damage of any kind arising from the use of this data sheet.

SAFE SERVICING PRACTICES

To avoid the possibility of personal injury and/or property damage, it is important that safe servicing practices be observed. The following are examples, but without limitation, of such practices.

1. Before servicing or moving an appliance remove power cord from electrical outlet, trip circuit breaker to OFF, or remove fuse.
2. Never interfere with the proper installation of any safety device.
3. GROUNDING: The standard color coding for safety ground wires is *GREEN* or *GREEN WITH YELLOW STRIPES*. Ground leads are not to be used as current carrying conductors. **It is extremely important that the service technician reestablish all safety grounds prior to completion of service. Failure to do so will create a potential safety hazard.**
4. Prior to returning the product to service, ensure that:
   - All electric connections are correct and secure.
   - All electrical leads are properly dressed and secured away from sharp edges, high-temperature components, and moving parts.
   - All uninsulated electrical terminals, connectors, heaters, etc. are adequately spaced away from all metal parts and panels.
   - All safety grounds (both internal and external) are correctly and securely reassembled.

CONVECTION BAKE or CONVECTION ROAST MODE

To set the oven for the Convection mode, follow these steps:

1. Press the **CONV BAKE** or **CONV ROAST** (some models) pad.
2. Press the number pads (0-9) to select the desired temperature and then press the **START** pad. The **CONV** icon will glow, signifying that the Convection function has been activated. The fan (and convection assist element) will come on and run continuously while the oven is in the Convection mode. The fan and convection element icons will glow while the fan is running. The fan will stop if the door is opened and begin operating again when the door is closed.
3. To cancel the Convection Bake/Roast function, press **CANCEL** or **CLEAR** on the oven control as you would to cancel any baking function.

FAN MOTOR

The fan motor is mounted on the main back on the back side of the range. It can be accessed by removing the rear wire shields.

FAN BLADE

The fan blade is mounted in the rear of the oven and has a "D" shaped mounting hole. Only minimum clearance exists between the oven back, fan blade, and fan shroud. Be careful not to bend the blade when removing or installing.

Access to the fan blade is gained by removing the fan shroud located inside the oven and held in place by two screws.

The fan blade is held in place with a 13 mm hex nut that has **left handed threads.** When removing this nut, gently hold the fan blade, and turn the nut clockwise. If one of the blades becomes deformed, it may be bent back into shape using a flat surface as a reference. A flat washer is located on the motor shaft between the snap ring on the shaft and the fan blade.

Note: If the fan blade is bent and the motor vibrations increase, the noise made by the fan will be greater.

FAN OPERATION

The fan motor runs continuously while in Convection Bake/Roast mode unless the door is opened. If the fan does not operate, check the following:

- Is the oven control in Convection Bake/Roast mode?
- Are 120 volts available at the fan motor?
- Is the fan motor coil resistance 14.5 ohms ±10%?
- Is the door/light switch working properly?

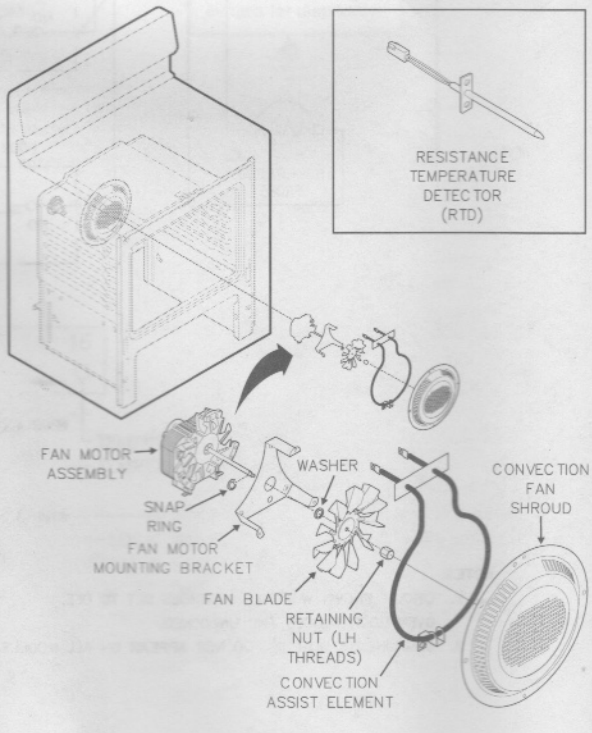
MOTOR MOUNTING BRACKET

The fan motor on the rear of the range is mounted through the main back to a mounting bracket that is attached with three screws to the backside of the rear oven wall. Should it become necessary to replace this bracket, the main back must be removed to access the mounting screws.

OVEN CALIBRATION

Set the electronic oven control for normal baking at 350°F. Obtain an average oven temperature after a minimum of 5 cycles. Press **CANCEL** or **CLEAR** to end bake mode.

RTD SCALE	
Temperature (°F)	Resistance (ohms)
32 ± 1.9	1000 ± 4.0
75 ± 2.5	1091 ± 5.3
250 ± 4.4	1453 ± 8.9
350 ± 5.4	1654 ± 10.8
450 ± 6.9	1852 ± 13.5
550 ± 8.2	2047 ± 15.8
650 ± 9.6	2237 ± 18.5
900 ± 13.6	2697 ± 24.4



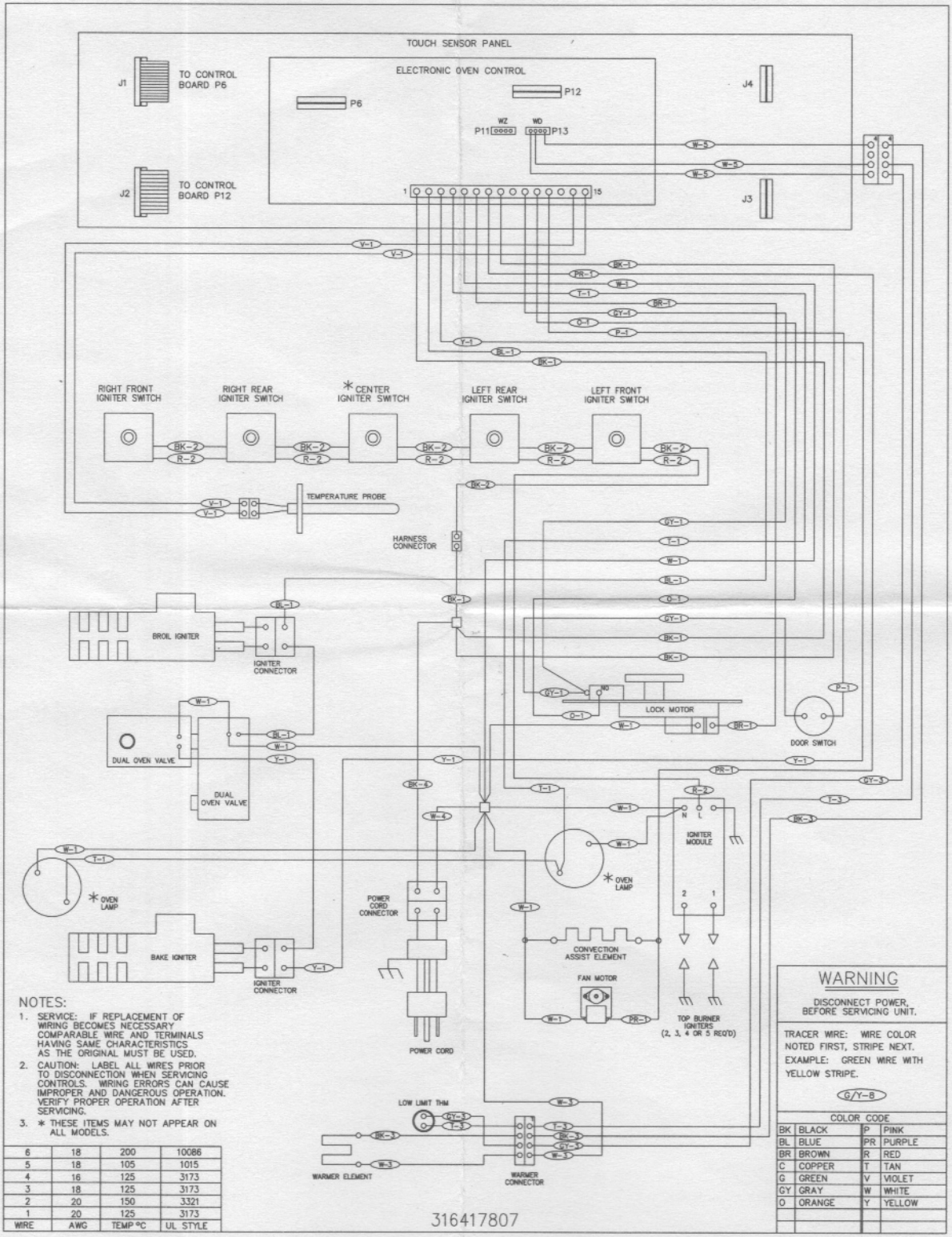
IMPORTANT

DO NOT REMOVE THIS BAG OR DESTROY THE CONTENTS

WIRING DIAGRAMS AND SERVICE INFORMATION ENCLOSED

REPLACE CONTENTS IN BAG

p/n 316417608 (0408)



NOTES:

1. SERVICE: IF REPLACEMENT OF WIRING BECOMES NECESSARY COMPARABLE WIRE AND TERMINALS HAVING SAME CHARACTERISTICS AS THE ORIGINAL MUST BE USED.
2. CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.
3. * THESE ITEMS MAY NOT APPEAR ON ALL MODELS.

WIRE	AWG	TEMP °C	UL STYLE
6	18	200	10086
5	18	105	1015
4	16	125	3173
3	18	125	3173
2	20	150	3321
1	20	125	3173

WARNING

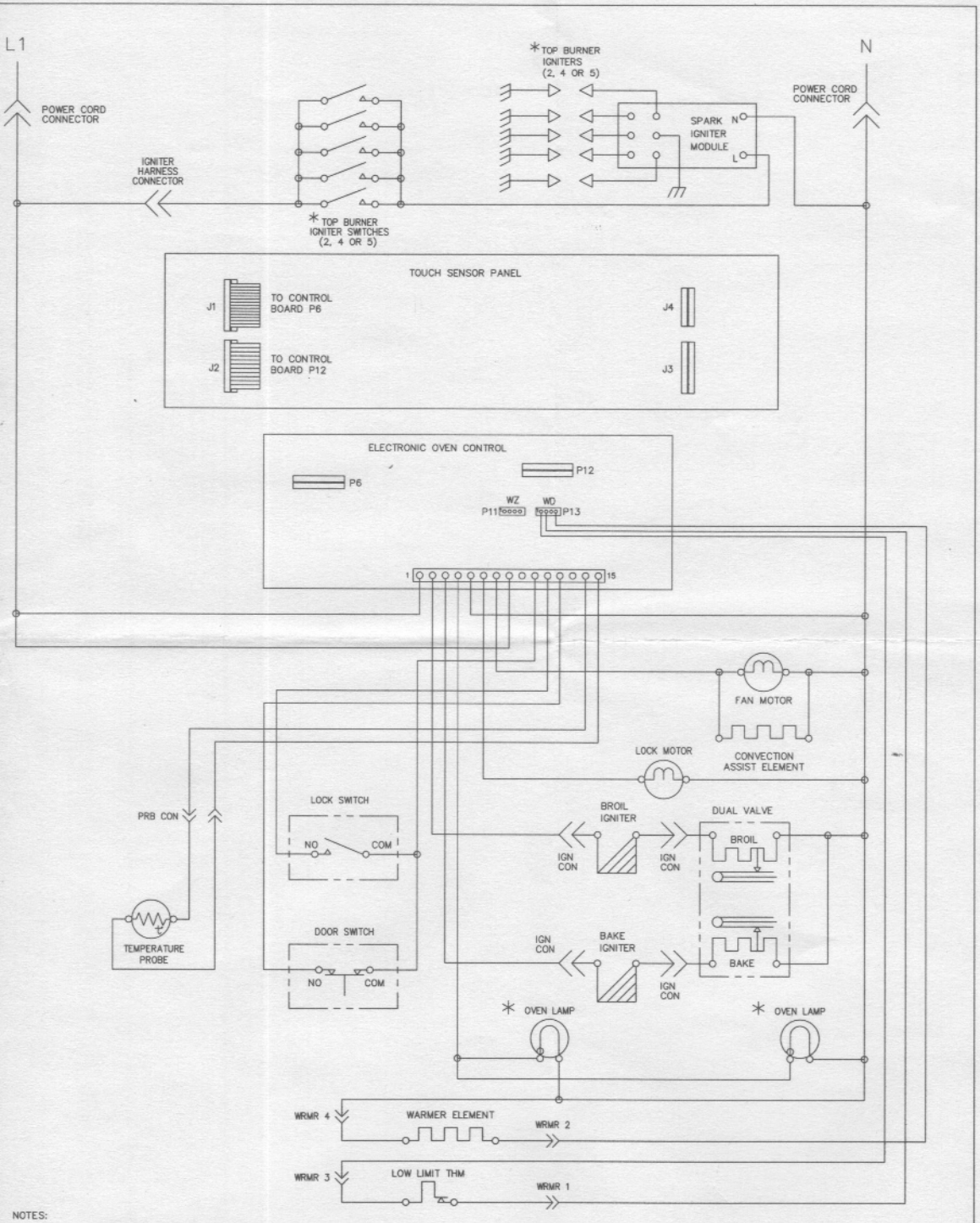
DISCONNECT POWER, BEFORE SERVICING UNIT.

TRACER WIRE: WIRE COLOR NOTED FIRST, STRIPE NEXT. EXAMPLE: GREEN WIRE WITH YELLOW STRIPE.

G/Y-8

COLOR CODE			
BK	BLACK	P	PINK
BL	BLUE	PR	PURPLE
BR	BROWN	R	RED
C	COPPER	T	TAN
G	GREEN	V	VIOLET
GY	GRAY	W	WHITE
O	ORANGE	Y	YELLOW

316417807



NOTES:

1. CIRCUIT SHOWN WITH ALL CONTROLS SET TO OFF, OVEN DOOR CLOSED AND UNLOCKED.
2. COMPONENTS WITH * DO NOT APPEAR ON ALL MODELS.

316417807